

## ABBREVIATIONS AND LETTER SYMBOLS FOR USE ON DRAWINGS AND PRODUCT MARKINGS, AND IN RELATED TEXT

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### 1. GENERAL

**1.01** This section contains abbreviations, including standard letter symbols for use on drawings and product markings and in related text issued for Bell System use. The letter symbols are in accordance with applicable American National Standards Institute's (ANSI) Standard Y10 Series, and are consistent with recommendations and standards of the International Organization for Standardization (ISO).

**1.02** This section revises and replaces Section 005-101-111, Issue 10, in its entirety and deletes the following Parts: "Application of Abbreviations," "Forms of Abbreviations," "General Terms and Their Abbreviations," and "Abbreviations and Their Meanings." Since this is a general revision, marginal arrows ordinarily used to indicate changes have been omitted.

**1.03** This section also directs users of abbreviations to Section 751-410-100, *Common Language Standard Abbreviations—Description* and to Sections 751-410-101, *Common Language Standard Abbreviations Master List, Words and Their Abbreviations* and 751-410-102, *Common Language Standard Abbreviations Master List, Abbreviations and the Words They Represent*. The Master List gives the users of abbreviations a larger base of applicable words and their abbreviations.

**1.04** The Common Language Department (Bell Laboratories, BISP Area) is responsible for the maintenance of abbreviations. The Common Language Department establishes new abbreviations as required, updates the listing of abbreviations, and periodically publishes them in Bell System Practices (BSPs).

**1.05** Questions concerning these abbreviations and requests for additional abbreviations should be directed to the Head, Common Language Department, Bell Laboratories, via the appropriate Operating Company Common Language Contact. Other Bell System Companies should direct their inquiries, through normal organizational channels to the Common Language Department.

**1.06** Abbreviations contained in the Master List have been approved by the Bell System Data Interchange Language Standardization Committee which is comprised of representatives from AT&T, Western Electric, and Bell Laboratories.

**1.07** Related information is contained in the following sections which are either subsets of the Master List or supplements to the Master List of Abbreviations.

(a) Abbreviations for equipment frames, racks, bays, and cabinets are found in Section 005-101-112, "Standard Abbreviations—Frames, Racks, Bays, and Cabinets."

(b) Abbreviations for wire insulations are found in Section 005-150-101, "Wiring Symbols, Wiring Abbreviations, and Definitions."

(c) Abbreviations for wire colors in central office equipment are found in Section 800-612-161, "Color Combinations and Uses, Wiring and Cabling, General Equipment Requirements."

(d) Abbreviations for use in electronic systems input and output messages are found in Section 005-104-100, "Standard Abbreviations—Electronic Systems Input/Output Messages."

(e) Symbols for circuit schematic drawings are found in Section 005-108-111, "Symbols for Circuit Schematic Drawings."

(f) Symbols and abbreviations for outside plant (eg, poles, conduit, manholes, terminals, etc) are found in Section 620-040-XXX.

2. SYMBOLS AND DESIGNATIONS

2.01 Letter symbols which are in accordance with the standards of the International Organization for Standardization (ISO) and the American National Standards Institute (ANSI), and which are found in the Master List of Abbreviations shall be used as the preferred form of abbreviation in equations, tables, diagrams, markings, drawings, nameplates, and in related text.

(a) Alternative abbreviations found in the Master List are composed entirely of uppercase characters and are shown in addition to standard letter symbols containing lowercase characters, exponents, mathematical signs, Greek letters, etc. These alternative abbreviations shall be used when use of the standard letter symbols is not possible. Alternative abbreviations are also shown for several words having letter symbols composed of a single uppercase character. These abbreviations may be used in place of the single character abbreviation where the application would require a more mnemonic or easily recognizable abbreviation.

Example:

|                          |                             |
|--------------------------|-----------------------------|
| Ampere                   | AMP<br>A                    |
| Kilogram Per Cubic Meter | KGMPCM<br>kg/m <sup>3</sup> |
| Wavelength               | WL<br>λ                     |

(b) Prefixes indicating decimal multiples or submultiples of the International System of Units (SI) shall be in accordance with Table A.

TABLE A

| MULTIPLE          | PREFIX | SYMBOL |
|-------------------|--------|--------|
| 10 <sup>12</sup>  | tera   | T      |
| 10 <sup>9</sup>   | giga   | G      |
| 10 <sup>6</sup>   | mega   | M      |
| 10 <sup>4</sup>   | kilo   | k      |
| 10 <sup>2</sup>   | hecto  | h      |
| 10                | deka   | da     |
| 10 <sup>-1</sup>  | deci   | d      |
| 10 <sup>-2</sup>  | centi  | c      |
| 10 <sup>-3</sup>  | milli  | m      |
| 10 <sup>-6</sup>  | micro  | μ      |
| 10 <sup>-9</sup>  | nano   | n      |
| 10 <sup>-12</sup> | pico   | p      |
| 10 <sup>-13</sup> | fenito | f      |
| 10 <sup>-18</sup> | atto   | a      |

(c) Other symbols and designations not covered in this practice or in the Master List and used on drawings or as product markings shall conform to applicable Bell System Practices (such as those listed in 1.07).

2.02 Designations found in supplemental abbreviation sections (see 1.07) and used for the identification of components, circuit elements, circuit packs, etc, are in the category of designators. The abbreviations listed on the Master List are not intended for use as designators although some abbreviations found in the Master List may be identical with the designators.

2.03 Noise measurement designations, when required in text, shall be in accordance with the standard designations shown in Table B. In cases where lowercase representations of these designations are not possible, all characters may be uppercase.

TABLE B

| NOISE MEASUREMENTS USING<br>3A NOISE MEASURING SET            | DESIGNATION FOR<br>USE IN TEXT |
|---|--------------------------------|
| dB referred to reference noise                                | dBrn                           |
| dBrn referred to OTLP   | dBrn0                          |
| dBrn C-message weighting                                      | dBrnc                          |
| dBrnc referred to OTLP  | dBrnc0                         |
| dBrn 3 kHz Flat weighting                                     | dBrn 3 kHz                     |
| dBrn 15 kHz Flat weighting                                    | dBrn 15 kHz                    |
| dBrn Program weighting  | dBrn PROG                      |
| <i>Typical Designation: 20 dBrnc, 30 dBrn0 3 kHz</i>          |                                |
| NOISE MEASUREMENTS USING<br>6A IMPULSE COUNTER                | DESIGNATION FOR<br>USE IN TEXT |
| dBrn referred to OTLP   | dBrn0                          |
| dBrn Voice Band Data weighting                                | dBrn VB                        |
| dBrn Flat weighting   | dBrn FL                        |
| dBrn Narrow Band — 1170 cycle filter                          | dBrn NB (1170)                 |
| dBrn Narrow Band — 2125 cycle filter                          | dBrn NB (2125)                 |
| <i>Typical Designation: 90 counts 30 minutes, 68 dBrn0 VB</i> |                                |

3. OUTSIDE SUPPLIERS' PRODUCTS

3.01 In documents prepared for, or used in contacts with outside suppliers, the Master List abbreviations may be used if mutually agreed upon by the supplier and the Western Electric Company. Abbreviations may be used for commonly understood units of measure such as inches, feet, ohms, microfarads, etc, and generally recognized terms used for fastening devices such as round head, countersunk head, or for the specification of

manufacturing operations such as counterbore, countersink, and spot face.

4. ABBREVIATIONS FOR STATES OF THE UNITED STATES

4.01 Abbreviations for the States of the United States are contained in Section 751-410-205 and in the Abbreviations Master List.

**5. WORDS AND THEIR ABBREVIATIONS; ABBREVIATIONS  
AND THEIR WORDS**

**5.01** The Abbreviations Master List is published  
in Sections 751-410-101 and 751-410-102.

Refer to Section 751-410-101 for a listing of words  
and their abbreviations in alphabetical order according  
to word. Section 751-410-102 is a listing of  
abbreviations and the words they represent in  
alphabetical order according to abbreviation.